EXHIBIT 5

MAO DECLARATION
ISO PLAINTIFFS'
MOTION FOR CLASS CERTIFICATION

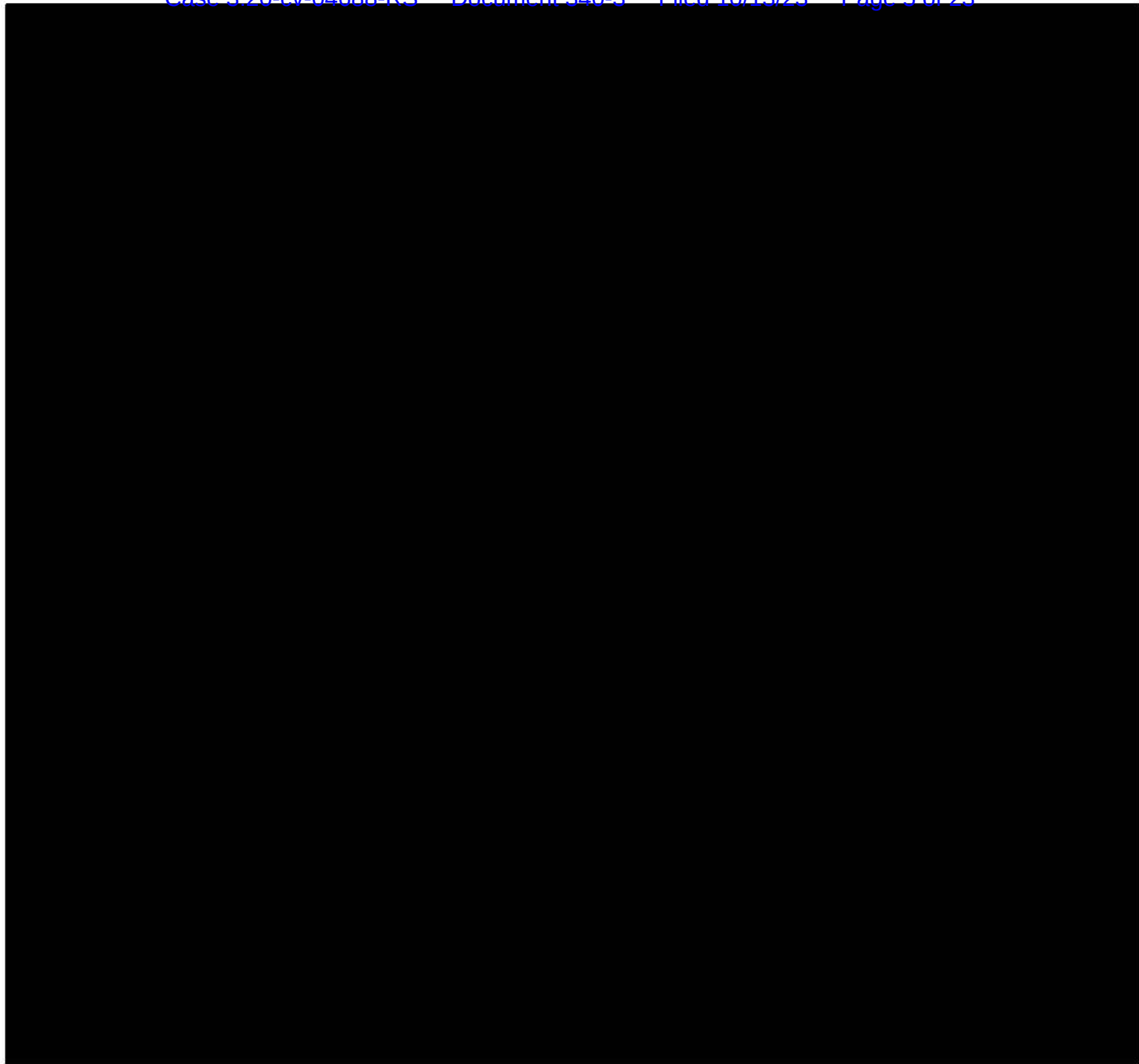# PUBLIC REDACTED VERSION

UDC Research

UDC Research to Date

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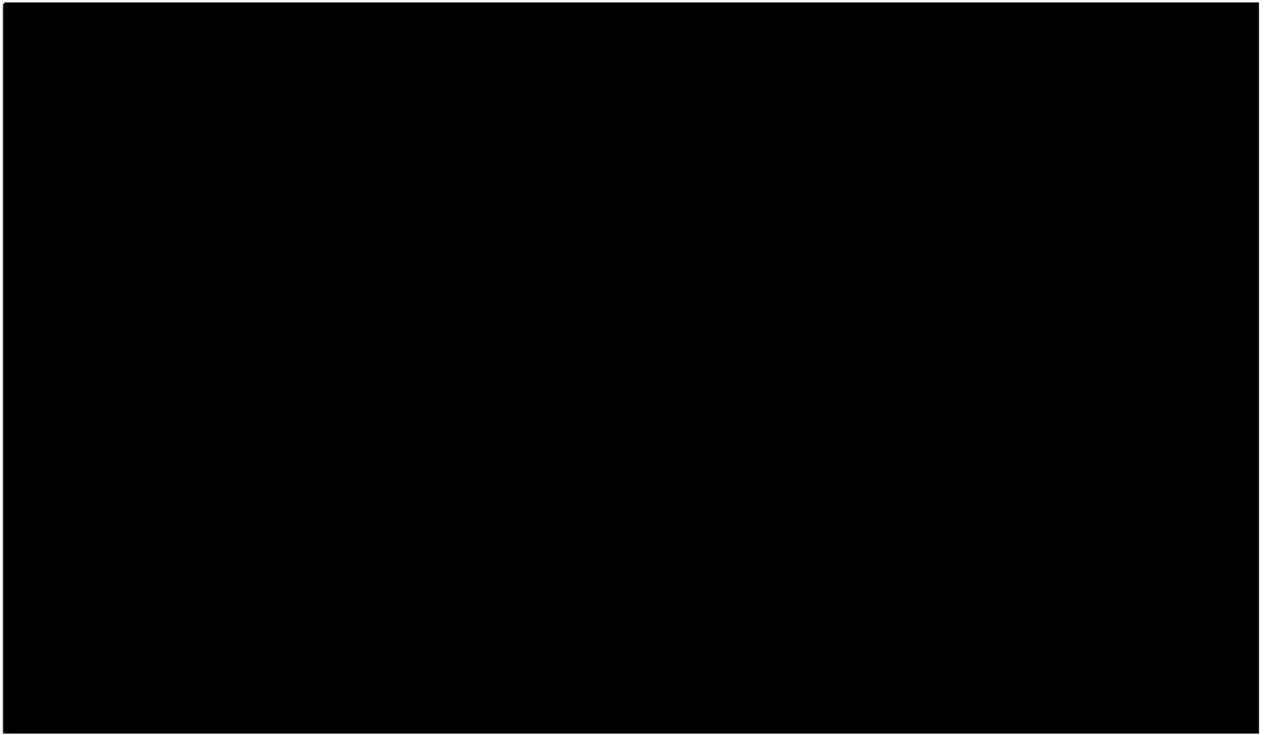
INFORMATION ARCHITECTURE

Some device items are in this list.

IA

Winners	Losers
	My Settings/My Activity (study)
	None of the participants knew how to find Google Settings. They expected to find and control permissions via
	• Gmail account settings on a desktop (2/6)
	• Google settings (1/6)
	• Phone settings (1/6)
	• Chrome settings (1/6)
	• A Google search of herself (1/6)
	Consent flow (maps)
	7/8 users believed that this setting would be controlled just within the app, rather than at the account level.
	Granularity of control
	No master switch (at UDC level) - product level control is more beneficial. (study)
	My Activity discoverability (pinecone1)
	4/10 didn't notice it without probing

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IA

Winners	Losers
Toggles!!	WAA + sWAA

In our Munich Pinecone study (go/pinecone3), we observed that only 3/10 participants understand the relation between the sWAA and the WAA. One participant thought it would deactivate her third party apps.

In Barcelona (go/pinecone5-results), we still didn't fix the sWAA aspect of the setting. We found that 8/10 didn't understand the sWAA text and the effect this could have in their experience. Only 2/10 participants kind of understood the text in the sWAA and the difference with the WAA. One participant was so confused he even thought it was something to deactivate ads. It might have been caused by a translation that included the words "Third Parties" but, regardless, we need to keep iteration on how we can best explain sWAA and relate it to WAA.

https://docs.google.com/document/d/1M6CwX-n3Okf565l-ByhGgSN4yrhi5U81zdnooztTWjc/edit?usp=sharing

USABILITY TESTS

CTAs

Winners

Stop/Activate

On/Off (study)

Losers

Pause/Enable (go/pinecone1)

This option created additional layers of complexity

Users didn't understand their past data would be there.

Deactivate

Users assumed past data would be wiped

Learn More

"no time for this" and "sounds like instructions"

Nielsen Research proving Learn More is not best practice

Manage Data (misperception)

"I'd see an option to get rid of the history that's already there or be able to see a list of different things that it has saved."

Skip/Continue (study)

"I feel like I have no control."

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https://docs.google.com/document/d/1M6CwX-n3Okf565l-ByhGgSN4yrhi5U81zdnooztTWjc/edit?usp=sharing

Naming Conventions

Winners	Losers
Data Controls	**Data Settings**

Winners

Data Controls

History Control (best our idea of user empowerment in this 2014 study), but history also a vague term

Account History (best sense of transparency)

Search and Browsing History (study)

Device information (study)

Location history (study)

Losers

Data Settings

History (too generic, users think of browser history)

Web and App History (not clear)
"Everything, from keystrokes, tapping on my phone... to how I use an app."

sWAA checkbox (users don't understand scale)
"Not only one, but different G products I am logged in" (study)

Other associated data

Data from multiple devices (go/pinecone3)
Only 4/10 participants understand that Google will gather data from all logged-in devices.

Your Activity
50% understood

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Location History (study)

https://docs.google.com/document/d/1M6CwX-n3Okf565l-ByhGgSN4yrhi5U81zdnooztTWjc/edit?usp=sharing

Value props

Winners

Make searches faster and get customized experiences in Search, Maps, Now and other Google products (WAA, study)

Clarify what kind of data is included in "Your voice and audio" and "Information from your device."

/ **Content & value proposition:** More explicit information / examples is good. (study)

Participants wanted to know how opting in would provide them value in order to make a more informed decision Seems like examples need to be tailored too in order to be effective in communicating value. Some ppts liked the car parking ex., but some didn't have a car, and were unconvinced.
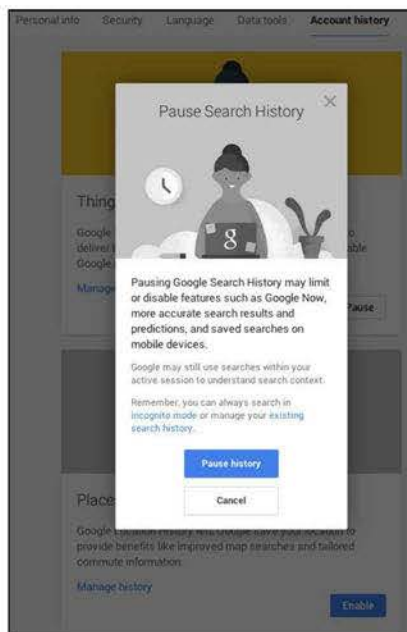
Losers

Help Google Understand (study)

Speed up your searches and help products like Search and Google Now provide customized information like travel and commute updates (study).

No comprehension of what data is collected

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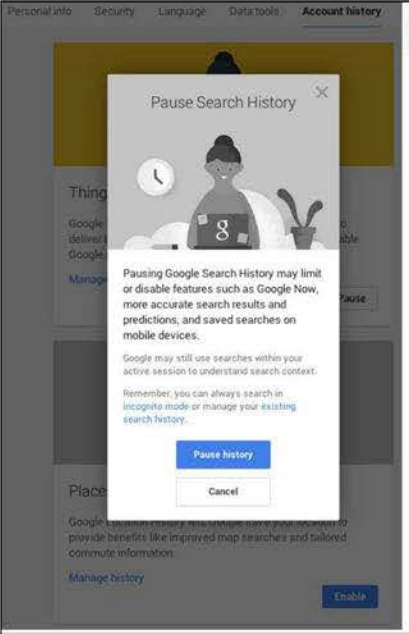https://docs.google.com/document/d/1M6CwX-n3Okf565l-ByhGgSN4yrhi5U81zdnooztTWjc/edit?usp=sharing

Cognitive load
Flow takes time to process (in this 2014 study)

The flow was perceived as too text heavy. Having gone through the pausing flow:

- 10/10 Ps stated that existing data still be there / not deleted (➔ what we want)

- 6/10 Ps thought past data could affect current UX. The remaining 4 were unsure.(➔ we need to improve this)

- 7/10 Ps said they could go to search history to delete data (➔ this is good)
- 6/10 Ps mentioned pause or incognito as an option to not be traced.

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Cognitive load

Setting + Confirmation confuses users (Pinecone 6 - P5, P8)

The Settings UI flow, where the setting is shown as on/off and tapping the toggle opens a confirmation dialog, confused users:

- Some Ps assumed tapping the toggle was all that was necessary (confused by the dialog)

- Some Ps moved away from the Settings UI before the dialog had time to load (do to slow connection)

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Misperceptions

Misconceptions between clearing browsing history and deleting data.

I usually clear my browsing history because I don't want my brother to see it. I didn't know this (Web & App) existed here . - P4 (study)

Deleting vs. Turning off

Only 2/10 understood their previous information would still be saved but no new information would be gathered. (pinecone1)
In Barcelona (co/pinecone5-results), we found that
- 7/10 understood that when they turned OFF WAA, that no new activity would be stored.
- 4/10 fully and 3/10 partly understood that when they turned OFF WAA that data will not be deleted
- 4/10 went to 'Delete my activity' unprompted. One user expected to get a prompt 'Do you want to delete your activity' when turning off the WAA setting

People were taken aback with the data that was visible through the different activity managers.

I didn't realise this was there; I might be a bit wary now that I'm seeing it (but I have nothing to hide). - P6

Google

ATTITUDINAL OBSERVATIONS

Helplessness

Ps (2014) did not voice strong privacy concerns during/after the UDC flow, however, several Ps in Zurich repeated general underlying feeling of helplessness and distrust.

"I personally believe that nothing can be deleted. It is still on a server." P2 ZRH
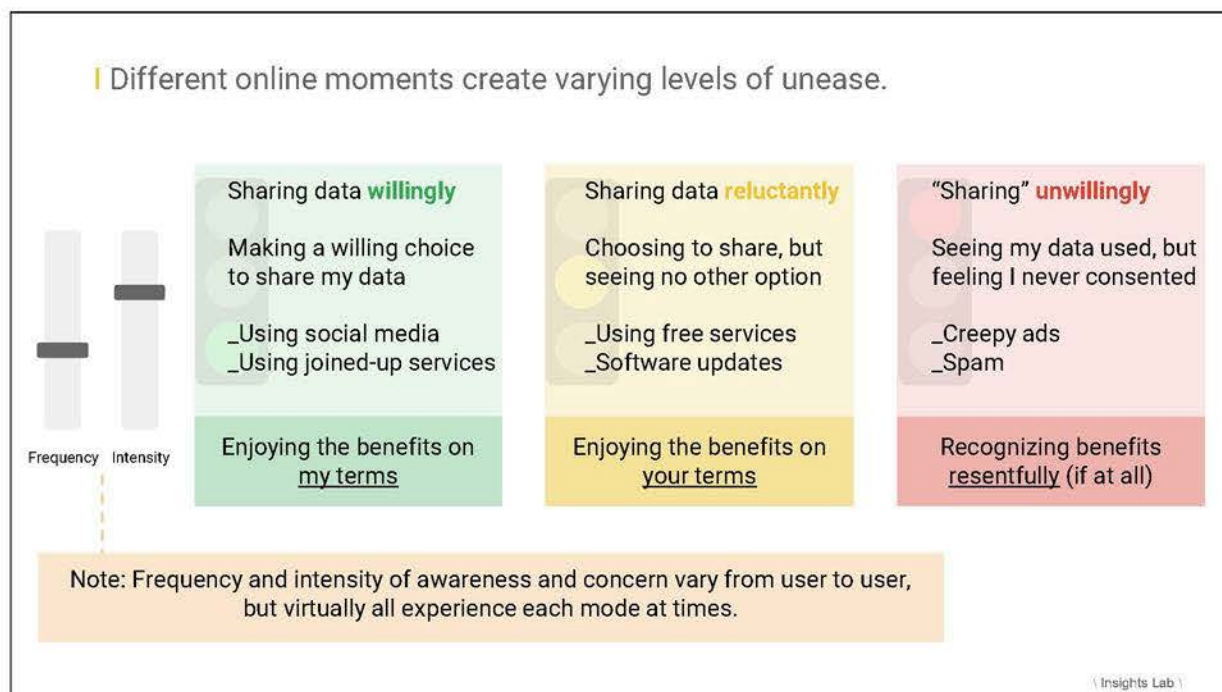
There are very similar quotes in related location studies in London:

"Nothing is ever really deleted is it?" -
- P12 Maps Activity R1 study London

Illustration from go/upop

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https://docs.google.com/presentation/d/19ftWAldFzEHFO-oJ6WGWR6H13zBtcyLRGG5Oy31vvEU/edit?ts=590a1a79#slide=id.g223edf523a_0_843

RESEARCH QUESTIONS

Framework/Structure

Granularity (more or less settings)

Google-wide
Where do think this data is going? Who is saving this
(product vs. Google)?

Comprehension

What is saved

When it is saved

How Google uses it

What control/options you have

Trust

Control
Do you feel in control?
Do you feel like you have options?

Confidence
Do you feel like you can make an educated decision?
Do you care about this stuff at all?

Tradeoff
Is Google asking for things you think Google should ask for (are we overreaching)?
Do you feel like you are getting more "value" out of Google for the data you are giving?

Fear of Google
How do you feel about Google have this data, vs. just the product?
Do you feel Google has your best interest at heart